Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please cancel claims 1-14.

Please add the following new claims:

15. (New) A method for monitoring the mass flow of a particulate solids flow in a pneumatic pipeline comprising:
transforming said particulate solids flow into a free and compact solid/gas jet;
intercepting said compact solid/gas jet with a stemlike impact body that is axially arranged in said compact solid/gas jet so that the latter impacts onto a frontal impact surface of said impact body with substantially its whole cross-section;
and
sensing structure-born acoustic waves which are generated in said impact body by said compact solid/gas jet impacting thereon, to monitor the mass flow of said particulate solids flow in said pneumatic pipeline.

16. (New) The method as claimed in claim 15, wherein:
said structure-born acoustic waves are sensed in one or more specific frequency ranges within the frequency range of 0 to 1000 kHz and subjected to a frequency dependent analysis to derive therefrom a value that is representative of the mass flow rate of the particulate solids flow.

17. (New) The method as claimed in claim 15, wherein said stemlike impact body is isolated from said pneumatic pipeline with regard to structure-born acoustic noise.

18. (New) The method as claimed in claim 15, wherein:
said stemlike impact body is arranged within a measuring chamber that is connected between an upstream section and a downstream section of said pneumatic pipeline;
a nozzle transforms said particulate solids flow from said upstream section into a free, compact solid/gas jet, which axially impacts onto said impact body with substantially its whole cross-section; and
said particulate solids and said carrier gas that are deflected by said impact body leave said measuring chamber to re-establish a particulate solids flow in said downstream section of said pneumatic pipeline.

19. (New) The method as claimed in claim 18, wherein said particulate solids and said carrier gas that are deflected by said impact body leave said measuring chamber through at least one lateral outlet opening laterally of said impact body.

20. (New) The method as claimed in claim 19, wherein:
said stemlike impact body has an impact head;
said at least one lateral outlet opening is arranged laterally of said impact head;
said measuring chamber has a dead end that is filled up with particulate solids downstream of said lateral outlet opening ; and
said impact head is supported by a stem so as to protrude out of said particulate solids in said dead end.

21. (New) A device for monitoring the mass flow of a particulate solids flow in a pneumatic pipeline, comprising:
a measuring chamber;
an impact body within said measuring chamber; and
an inlet connection designed so as to blow said particulate solids flow as a compact solid/gas jet onto said impact body within said measuring chamber, so that said compact solid/gas jet impacts onto said impact body with substantially its whole cross-section, said inlet connection having a central axis; wherein said impact body is a stemlike body penetrating into said measuring chamber in axial prolongation of said central axis of said inlet connection, so that said compact solid/gas jet impacts onto a frontal impact surface of said impact body with substantially its whole cross-section; and
an acoustic transducer associated with said impact body outside of said measuring chamber for sensing structure-born acoustic waves generated by said compact solid/gas jet impacting onto said impact body, and for converting them in an output signal.

22. (New) The device as claimed in claim 21, further including:
signal processing means for processing said output signal so as to derive therefrom a value that is representative of the mass flow rate of the particulate solids flow.

23. (New) The device as claimed in claim 21, wherein said stemlike impact body is isolated from said measuring chamber with regard to structure-born acoustic waves.

24. (New) The device as claimed in claim 21, wherein said stemlike impact body includes:
a mounting plate for mounting said impact body in said measuring chamber;
a support stem centrally supported on said mounting plate; and
an impact head supported by said support stem, said impact head forming said impact surface in axial prolongation of a central axis of said inlet connection.

25. (New) The device as claimed in claim 24, wherein said impact surface is substantially flat and perpendicular to the central axis of said inlet connection.

26. (New) The device as claimed in claim 24, wherein said impact surface is a conical surface that is coaxial to the central axis of said inlet connection.

27. (New) The device as claimed in claim 24, wherein :
said mounting plate closes said measuring chamber axially opposite said inlet connection; and
said measuring chamber has a lateral outlet opening laterally of said impact head.

28. (New) The device as claimed in claim 27, wherein said measuring chamber has a dead end extending axially downstream of said lateral outlet opening.

29. (New) A device for monitoring the mass flow of a particulate solids flow in a pneumatic pipeline comprising:
means for transforming said particulate solids flow into a free and compact solid/gas jet;
a stemlike impact body for intercepting said compact solid/gas jet, said stemlike impact body being axially arranged in said compact solid/gas jet so that the latter impacts onto a frontal impact surface of said impact body with substantially its whole cross-section; and
a sensing means for sensing structure-born acoustic waves which are generated in said impact body by said compact solid/gas jet impacting thereon.

30. (New) The device as claimed in claim 29, wherein said stemlike impact body is isolated from said pneumatic pipeline with regard to structure-born acoustic noise.

31. (New) The device as claimed in claim 29, further comprising:
a measuring chamber that is connected between an upstream section and a downstream section of said pneumatic pipeline, wherein said stemlike impact body is arranged within said measuring chamber.

32. (New) The device as claimed in claim 31, wherein said means for transforming said particulate solids flow into a free and compact solid/gas jet comprises a nozzle connected to said upstream section and capable of transforming a particulate solids flow from said upstream section into a free, compact solid/gas jet, which axially impacts onto said impact body with substantially its whole cross-section.

33. (New) The device as claimed in claim 32, wherein said measuring chamber includes at least one lateral outlet opening arranged laterally of said impact body.

34. (New) The device as claimed in claim 33, wherein:
said stemlike impact body has an impact head;
said at least one lateral outlet opening is arranged laterally of said impact head;
said measuring chamber has a dead end that is filled up with particulate solids downstream of said lateral outlet opening; and
said impact head is supported by a stem so as to protrude out of said particulate solids in said dead end.